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Three Opilionids from Thailand

With 3 Text-figures

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ABSTRACT Descriptions and illustrations are presented for two new species, *Zepedanulus watanabei* (Phalangodidae) and *Heterogagrella biseriata* (Gagrellidae), and for the male of *Paktongius distinctus* SUZUKI (Assamiidae), all from Thailand.

Recently the author has examined a small collection of Opiliones taken in Thailand by Dr. Hiroyuki WATANABE of Kyoto University. The material contained two new species and one little known species, which are described and figured in this article. The holotypes and the specimens used for this study are deposited in the SUZUKI collection.

Fam. Phalangodidae

Subfam. Epedaninae

Gen. *Zepedanulus* ROEWER

Zepedanulus ROEWER, 1938, p. 97.

As to the generic assignment of this material there are some questions. The fact that the eye tubercle and the scutum have no armaments indicates its close affinity with *Metepedanulus* ROEWER, 1913 and *Zepedanulus* ROEWER, 1927. However, it differs from the former genus by the presence of two mediodistal spines on the palpal femur and patella and one lateral spine on the patella, and from the latter genus by the presence of two segments, instead of three, in the second distitarsus. In these points it is conceivable as an intermediate between the two genera. If we follow ROEWER's manner of generic division in the Epedaninae, a new genus must be erected for it. Erection of a new genus basing on such minor differences results in a large number of genera, most of which are monotypic. On the basis of the combination of other characters, this specimen is provisionally placed in the genus *Zepedanulus*. In order to include it, the definition of *Zepedanulus* must be slightly extended.

Epedaninae: Eye tubercle without a median spine. First to fourth areas unarmed. Palpi: femur ventrally with five and mediodistally with two spines; patella medially with two and laterally with one spine. Legs: distitarsus I with two segments, II with two or three segments; double claws of third and fourth tarsi simple, untoothed.

Zepedanulus watanabei n. sp.

(Fig. 1)

Material. 1 ♂ (holotype), Chulabhorn (Nam Prom) Dam, Amphoe Khon San, Changwat Chaiyaphum, Thailand, 18-I-1980, H. WATANABE leg.

Description. Male—Body 2.5 mm long, 2.0 mm wide at widest portion. Total length of palp 5.6 mm. Length of femora I 2.0, II 2.9, III 2.3, IV 2.8 mm. Total length of legs I 8.8, II 13.1, III 9.0, IV 11.6 mm. Penis 0.9 mm long. Tarsal segments I 7L, 8R, II 18L, 17R, III 7, IV 8L, 9R. Segments of distitarsus I 2, II 2.

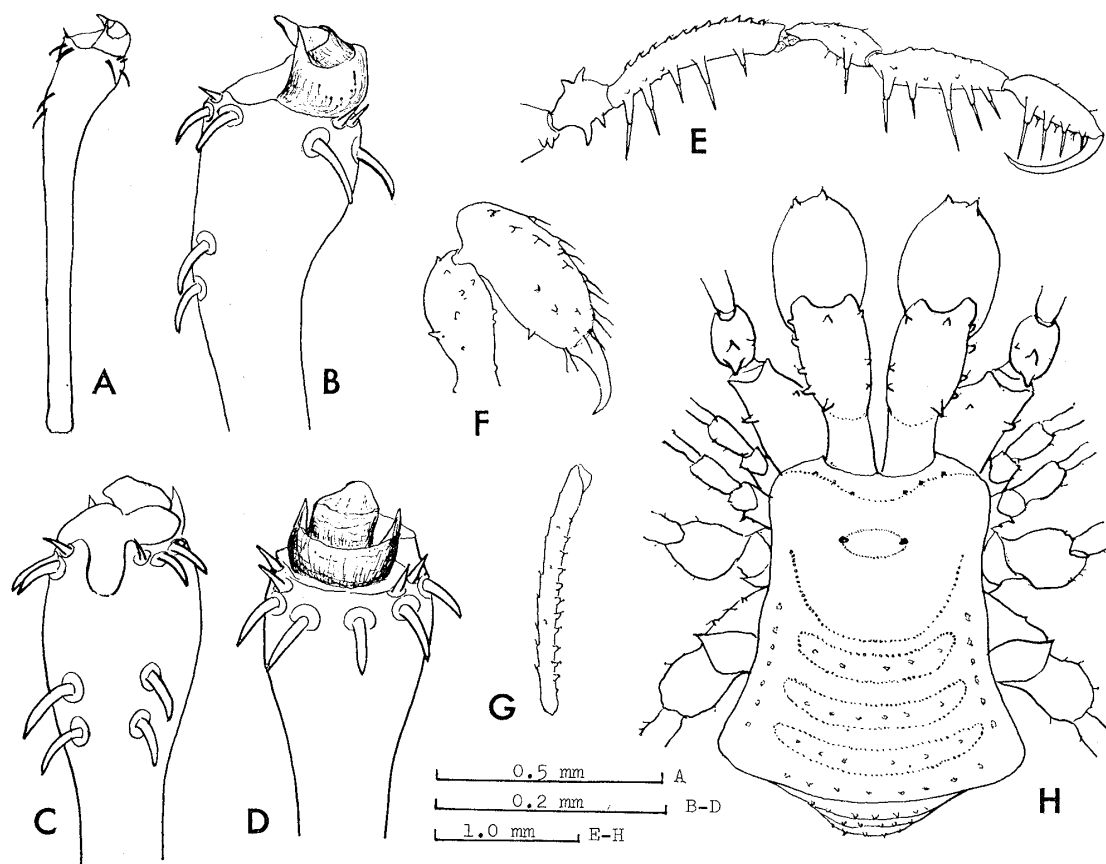


Fig. 1. *Zepedanulus watanabei* n. sp., male holotype. — A, Lateral aspect of entire penis; B, lateral, C, ventral, and D, dorsal aspect of distal portion of penis; E, ectal view of palp; F, same view of chelicera; G, same view of first femur; H, dorsal aspect of body.

Surface of carapace smooth, with three small tubercles on each side of anterior margin. Eye tubercle low, unarmed. All scutal and free tergites each with a row of small tubercles; a row of granules on the lateral ridge of scutum. Free sternites with a row of small hair-tipped tubercles; coxae of first and second legs clothed with coarse tubercles, tubercles heavier on the first, third and fourth smooth.

Chelicerae: First segment swollen distally above, dentation as in Fig. 1H; second swollen, armed frontally with numerous setose tubercles; two or three teeth present on the lateral side and further two subdistally on the ventral side.

Palpi: Structure and spination of the lateral side as in Fig. 1E; femur armed dorsally with two longitudinal rows of conical tubercles, mediodistally with two spines; patella with two medial spines; tibia and tarsus each with three medial spines.

Legs: Trochanters with a few granulations below; femora sparsely granular; granules somewhat enlarged into a row of tubercles on the ventral side of first femur. Double claws of third and fourth tarsi simple, untoothed.

Color: Entire body and appendages bleached, giving pale whitish yellow coloration.

Penis: Relatively short; distal portion of shaft swollen, of the form shown in Fig. 1 A–D.

Remarks. The present material differs from *Z. armatipalpus* ROEWER in having the smaller body size and two (instead of three) segments in the second distitarsus. Also, the spination of the trochanter and tibia of the palpi and the armatures of the cheliceral segments are greatly different between them.

Fam. Assamiidae
Subfam. Polycoryphinae

***Paktongius distinctus* SUZUKI**

(Fig. 2)

Paktongius distinctus SUZUKI, 1969, p. 96.

Material. 1 ♂, 1 ♀, 3 pulli, Chulabhorn (Nam Prom) Dam, Amphoe Khon San, Changwat Chaiyaphum, Thailand, 30–V–1980, H. WATANABE leg.

This species was originally described based on a single female holotype. Description and illustration of the male are given here.

Description. Male—Body 2.4 mm long, 1.9 mm wide at widest portion. Length of femora I 1.1, II 1.8, III 1.2, IV 1.9 mm. Total length of legs I 4.4, II 7.4, III 5.1, IV 7.2 mm. Penis 0.7 mm long. Tarsal segments I 4, II 8L, 9R, III 5, IV 6. Segments of distitarsus I 3, II 3.

The male is similar to the female in the general appearance but with slightly smaller body size; the coxae of fourth legs are much wider than in the female (it seems to be the secondary male sexual character), having numerous tubercles on the prolateral surface (Fig. 2A).

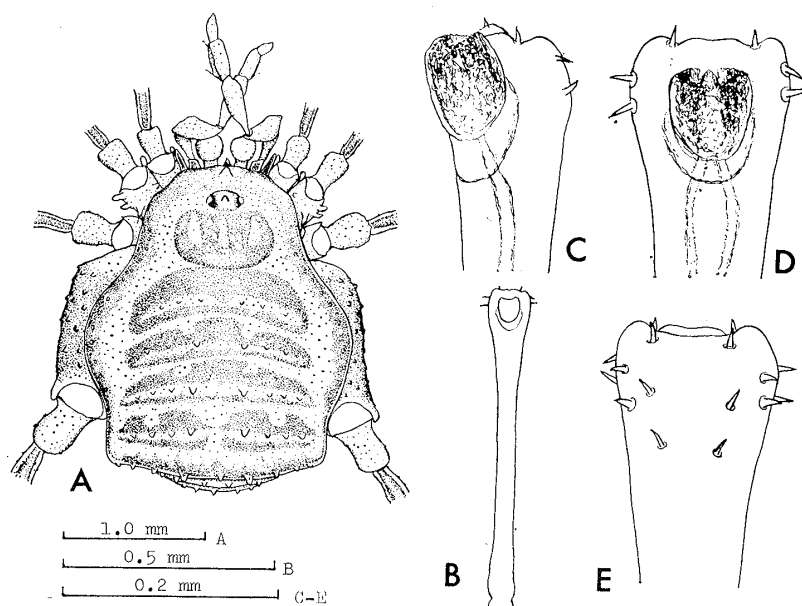


Fig. 2. *Paktongius distinctus* SUZUKI, ♂. — A, Dorsal aspect of body; B, dorsal view of entire penis; C, lateral, D, dorsal, and E, ventral views of distal portion of penis.

Penis: Of the form as in Fig. 2 B–E. Relatively short, distal portion of shaft widened.

Fam. Gagrellidae
Subfam. Gagrellinae

Heterogagrella biseriata n. sp.

(Fig. 3)

Material. 1 ♀ (holotype), Chulabhorn (Nam Prom) Dam, Amphoe Khon San, Changwat Chaiyaphum, Thailand, VII~VIII-1980, H. WATANABE leg.

Description. Female—Body 6.2 mm long, 4.1 mm wide at widest portion. Length of femora I 11.0, II 20.2, III 9.8, IV 14.3 mm. Total length of legs I 50.9, II 108.3, III 44.5, IV 68.0 mm.

Of the form as shown in Fig. 3 A. Carapace, free tergites and sides of abdomen (soft skin areas) very finely granular. Two thoracic tergites and first to fifth scutal areas (excepting parts of yellowish stripes which are smooth) clothed with coarse tuberculations. Median spine on the second area strong, especially so basally, clothed with sparse tubercles at proximal half. Eye tubercle rounded above, canaliculate, smooth entirely except for a few hairs. Coxae of legs with coarse pointed tubercles; a row of small teeth present anteriorly on all coxae and posteriorly on first and fourth, edge of small teeth straightly blunted.

Chelicerae normal; first segment armed dorsally with 4–5 pointed teeth, second unarmed. Supracheliceral lamellae protruded medially, armed with numerous teeth.

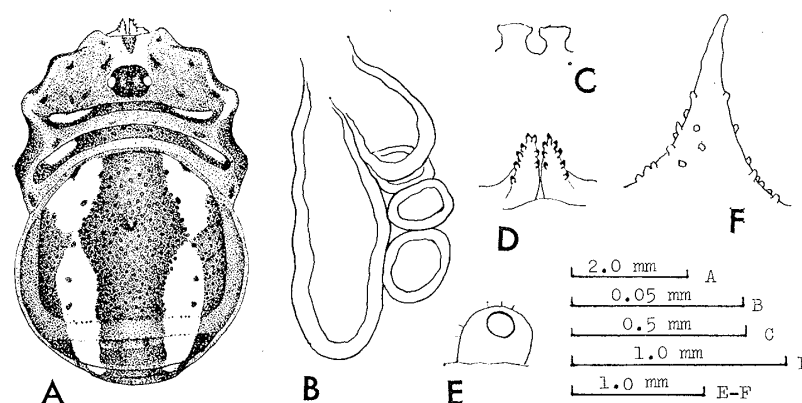


Fig. 3. *Heterogagrella biseriata* n. sp., female holotype. — A, Dorsal view of body; B, seminal receptacle; C, marginal teeth on first coxa; D, supracheliceral lamellae, dorsal view; E, left side view of eye tubercle; F, same view of scutal spine.

Palpi: Femur ventrally with numerous scattered teeth, a short basal row of teeth on the ventro-medial side. Patella to tarsi absent.

Legs slender and very long; femora clothed with scattered small teeth throughout, remaining of leg-segments only hairy. Noduli formula 1-3-1-1.

Color: Carapace dark brown with small blackish patches on each side; a small median area between front margin and eye tubercle yellowish white, on this area present a short dark brown spot at mid-front position. Eye tubercle blackish brown entirely. Two thoracic tergites, scutal areas (including median spine) and free tergites blackish brown to black; a remarkable yellowish stripe present on each side of abdomen (these markings are as shown in Fig. 3A); sides of abdomen dark brown. Surface of all coxae and free sternites pale yellowish white, marginal teeth dark brown. Surface of carapace, all coxae and free sternites covered with whitish secretions. Chelicerae and palpi dark brown; first cheliceral segment blackish dorsally with a small golden yellow patch at distal margin, fingers a little paler, tipped with black. Legs dark brown, trochanters and capita of femora blackish, a small yellowish patch present dorsally on each side of trochanters.

Ovipositor: 28 segments; of the form as in Fig. 3B.

Male—Unknown.

Remarks. The present material clearly differs from *H. indica* ROEWER, 1954, only one known species of this genus, by having 4-5 teeth on the first cheliceral segment and coarse tuberculations on the scutal areas. Also, the presence of two yellowish white stripes on the abdomen is distinct enough to separate both the species.

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REFERENCES

- ROEWER, C. Fr., 1938. *Veröff. Dtsch. Kolonial- u. Uebersee-Mus.*, **2**: 81-169.
——— 1954. *Senck. biol.*, **35**: 237-292.
SUZUKI, S., 1969. *J. Sci. Hiroshima Univ.*, (B-1), **22**: 79-101.